What is claimed is:

1. A method of reducing the risk of transmission of a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen with a β-cyclodextrin.

2. The method of claim 1, wherein the pathogen is an enveloped virus.

3. The method of claim 2, wherein the enveloped virus is an immunodeficiency virus, a T lymphotrophic virus, a herpesvirus, a measles virus, or an influenza virus.

4. The method of claim 2, wherein the enveloped is a human immunodeficiency virus.

5. The method of claim 2, wherein the enveloped virus is a *Herpes simplex* virus.

6. The method of claim 1, wherein the pathogen is a microbial pathogen.

7. The method of claim 6, wherein the microbial pathogen is a bacterium, a yeast, or a protozoan.

8. The method of claim 6, wherein the microbial pathogen is a *Chlamydia spp.*, a *Trichomona spp.*, or a *Candida spp.*

9. A method of reducing the risk of a subject becoming infected with a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen in the subject with a pharmaceutical composition comprising a β-cyclodextrin, thereby reducing the risk of the subject becoming infected with the sexually transmitted pathogen.

10. The method of claim 9, wherein the subject is a human.

11. The method of claim 9, wherein the cells susceptible to infection by the pathogen are epithelial cells.

12. The method of claim 11, wherein the epithelial cells are vaginal epithelial cells or rectal epithelial cells.

13. The method of claim 8, wherein the pharmaceutical composition is formulated in a solution, a gel, a foam, an ointment, a cream, a paste, or a spray.

14. The method of claim 9, wherein the pharmaceutical composition is formulated in a suppository, a film, a vaginal disk, or a condom.

15. The method of claim 9, wherein the β-cyclodextrin is 2-hydroxypropyl-β-cyclodextrin.

16. The method of claim 9, wherein the pharmaceutical composition further comprises a contraceptive, an antimicrobial agent, an antiviral agent, a lubricant, or a combination thereof.

17. The method of claim 16, wherein the contraceptive is a spermicide.

18. The method of claim 16, wherein the antimicrobial agent is an antibiotic.

19. The method of claim 9, wherein the sexually transmitted pathogen is an enveloped virus or a microbial pathogen.

20. The method of claim 19, wherein the enveloped virus is an immunodeficiency virus, a T lymphotrophic virus, a herpesvirus, a measles virus, or an influenza virus.

21. The method of claim 10, wherein the sexually transmitted pathogen is a human immunodeficiency virus (HIV) or a *Herpes simplex* virus.

22. The method of claim 19, wherein the microbial pathogen is a bacterium, a yeast, or a protozoan.

23. A method of reducing the risk of transmission of a sexually transmitted disease by a subject infected with a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen with a pharmaceutical composition comprising a β-cyclodextrin, thereby reducing the risk of transmission of the sexually transmitted disease by the subject.

24. The method of claim 23, wherein the subject is a vertebrate.

25. The method of claim 23, wherein the cells susceptible to infection comprise a secretion produced by the subject.

26. The method of claim 25, wherein the secretion is semen or a vaginal secretion.

27. The method of claim 23, wherein the cells susceptible to infection are epithelial cells.

28. The method of claim 23, wherein the pharmaceutical composition is formulated in a solution, a gel, a foam, an ointment, a cream, a paste, or a spray.

29. The method of claim 23, wherein the pharmaceutical composition is formulated in a suppository, a bioadhesive polymer, a vaginal disk, or a condom.

30. The method of claim 23, wherein the β-cyclodextrin is 2-hydroxypropyl-β-cyclodextrin.

31. The method of claim 23, wherein the pharmaceutical composition further comprises an antimicrobial agent, an antiviral agent, or a combination thereof.

32. The method of claim 31, wherein the antimicrobial agent is an antibiotic.

33. The method of claim 23, wherein the sexually transmitted pathogen is an enveloped virus or a microbial pathogen.

34. The method of claim 33, wherein the enveloped virus is an immunodeficiency virus, a T lymphotrophic virus, a herpesvirus, a measles virus, or an influenza virus.

35. The method of claim 24, wherein the sexually transmitted pathogen is a human immunodeficiency virus (HIV) or a *Herpes simplex* virus.

36. The method of claim 33, wherein the microbial pathogen is a bacterium, a yeast, a mycoplasma, or a protozoan.

37. A pharmaceutical composition, comprising a β-cyclodextrin and an agent selected from a contraceptive, an agent for treating a sexually transmitted disease, a lubricant, and a combination thereof.

38. The pharmaceutical composition of claim 37, wherein the contraceptive is a spermicide.

39. The pharmaceutical composition of claim 27, wherein the agent for treating a sexually transmitted disease is an antimicrobial agent or an antiviral agent.

40. A composition for reducing the risk of transmission of a sexually transmitted disease, the composition comprising a solid substrate and a β-cyclodextrin.

41. The composition of claim 40, wherein said the solid substrate comprises an organic polymer.

42. The composition of claim 41, which is a condom, a diaphragm, a vaginal disk, or a vaginal film.

43. The composition of claim 41, which is a glove.

44. The composition of claim 40, wherein the solid substrate is an absorptive substrate.

45. The composition of claim 44, which is a sponge or a tampon.